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The Challenge of Mastitis Control

A practitioner looks at the mastitis problem

W. E. Daugherty, D.V.M., Sterling, Ill.

THERE is no doubt in the minds of many men connected with the dairy industry that bovine mastitis is the most important disease of the modern dairy cow. The problem of controlling this disease represents the biggest challenge the veterinary profession has ever had thrust upon it—a challenge even bigger than the problems of contagious pleuro-pneumonia and tuberculosis.

The statement has been made many times in Illinois that mastitis causes more losses in dairy cattle than both tuberculosis and Bang's disease combined. A great many herd owners and a good percentage of dairy processors in Illinois are demanding that the veterinary profession eliminate, or at least reduce these losses.

At the present time some sort of state program for mastitis control is being considered in Illinois and no doubt will be under way in the near future.

Increase of Mastitis

Our knowledge of mastitis is voluminous. Experimental work down through the years has given us quite an accurate picture of the various etiological factors. We have a long list of predisposing factors and the clinical symptoms and pathology are known to all. In recent years rather effective treatments have been developed. In spite of all this, the dairy practitioner sees more mastitis than he did 10 years ago. This has been explained on the basis of intensive breeding programs and heavy feeding to meet war production goals. But the conscientious prac-

titioner finds himself wondering "Where have I, as a veterinarian, fallen down in attempting to control mastitis?" There have been some who have advocated a return to the low producing cow, but this is an admission that the veterinarian cannot keep up with the progress made by breeders.

What then is the solution to the mastitis problem? What steps will have to be taken in order to reduce the percentage of infected cows and to cut down the economic loss?

Plan of Control

If any efforts are to be made to control the trouble on a large scale basis a complete evaluation of the factors involved must be made. Some would have us believe that bacteria are of paramount importance. Others are of the opinion that the so-called "secondary factors" such as trauma, feeding, etc., are mainly responsible for the appearance of mastitis in a herd. Until the true importance of the role these things all play in producing mastitis is established any attempt at large scale control measures would seem a difficult job.

However, most authorities agree that a plan of control should include first of all accurate diagnosis to locate the infected cows. Yet here, among laboratory men, there is considerable difference of opinion as to what test or tests will give the most reliable information. The series of laboratory procedures recommended take

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Alumni Committee

The newest creation in the Veterinary Division is the Committee on Alumni Affairs. The organization is a standing committee of the Jr. A.V.M.A. and is under the advisorship of the dean of the Veterinary Division. Its formation was initiated by a desire to maintain closer contact between the veterinary alumni and the school and to maintain complete files. The Veterinary Student in continuing its policy of keeping alumni informed will publish information recommended by the alumni committee as a supplement to its own method of obtaining reports of alumni activity.

This venture is one requiring the cooperation of all alumni interested in keeping in touch with their former classmates. Does this cooperation mean a lot of work on your part? It does not. All that is necessary is a post card with pertinent information as regards your present location, vital statistics, and the like. Communications may be sent to the Alumni Committee of the A.V.M.A., the officers of the alumni committee within your class, if such a committee exists, or to the Veterinary Student.

While speaking of changes of location, it might be well to mention that an occasional post card from those recent graduates who as yet haven't a wife and family to keep them stationary would aid in getting their next "Student" to the proper address.

POSTWAR PLANNING

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service rendered. This problem must be treated ethically. With free enterprise in jeopardy in this country it behooves the profession as a whole to consider services ahead of personal gain.

Heretofore the preponderance of the veterinarian's work was concerned with the actual treatment of disease while preventive medicine was handled largely through state and federal agencies. In the

coming phase of intensified farming the private practitioner must develop in his clientele the desire and confidence to rely upon him for consultation in preventive medicine. With the advancement of programs of disease control and eradication and with the mechanization of agriculture it is only in this way that the practitioner can maintain and justify his existence in the community. He should also strive to ally himself with the physician in public health work. The veterinary service now being required by the army has highly educated many veterinarians in the field of meat, milk, and food inspection and sanitation. We must follow up this advantage and strive to create a demand from the people that the veterinarian be given this work to do. It is up to the veterinarian to create this demand.

The chaos following the last war demonstrated the disastrous effects of insufficient post war planning. Since we are a relatively small profession we must make up for our lack in numbers by earnest and enthusiastic support of progressive programs in order to establish and maintain a secure and respected position in the postwar professional and economic world.

(This is the first of a series of articles discussing the activity of the Postwar Planning Committee of the A.V.M.A.)

MASTITIS

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too much time and equipment for the average practitioner, and most laboratories haven't the personnel to run these tests if large numbers of samples are submitted.

Segregation of the infected cows would seem a simple matter, but a great many dairymen will not take the 2 weeks time and trouble necessary to break a cow into going into a different stanchion. They also consider washing udders with warm water and chlorine and drying them on separate towels, and disinfecting the teat cups of the milking machine as a procedure requiring too much time.

Mastitis will never be controlled by the veterinarian alone. Such a statement seems a bit heretical, but when and if mastitis is controlled it will be done by the veterinarian, owner, herdsman, and the hired man who milks and feeds the cows.

Eastern States Lead

The role of the veterinary profession then in controlling mastitis becomes one of an advisor and educator. He may play his part in the program by making the diagnosis, planning a sanitary program and treating selected cases. But without a religious adherence to these sanitary measures his diagnosis and treatment will gain no results in the end. The practitioner in the dairy districts of the Middle West is wondering what he can do to show his clients that they must follow such a program if they want to stop their mastitis losses.

The eastern states, it is generally conceded, are well ahead of us as regards mastitis control. They have forced the dairyman to adopt certain sanitary measures in order that he might have a market for his milk. In some areas of the eastern states mastitis tests are run on herds periodically, and if a herd shows infection, the milk from that herd cannot be sent to market until the trouble is eliminated. Naturally, herd owners in those areas are eager to follow any recommendations made for mastitis control.

Cooperation of Processors

Several large operators in the processing end of the dairy industry have indicated that they would like to cooperate with the veterinarian in some plan to control mastitis. These men, looking at the situation from a purely business standpoint, believe that if they were buying clean milk they would have less trouble in producing quality products. Also, they point out that a patron whose herd is free from mastitis would be getting more milk per cow, making more money, and hence the processor would not have so much grief over milk prices. They have indi-

cated that the veterinarian might expect as regards laboratory tests, and some have indicated that as soon as possible in the future they might be able to cooperate further by refusing to buy mastitis milk.

In seeking a solution to the problem of controlling mastitis, the veterinary profession might do well to call on the various dairy processors' associations for their help. The task of educating herd owners that certain sanitary practices are necessary to fight mastitis is a big one. The veterinary practitioner, for the most part, has had little success and he will run no risk of being called incompetent by asking for aid from others vitally interested in the dairy industry.

ABSTRACTS

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cabinet after washing by hand or mechanical means, and (d) plants using hand washing alone. In the large plants, 55.5 per cent of the bottles had less than 600 colonies when incubated at 22° and 37° C., and only 1.1 per cent had more than 25,000 colonies. The corresponding figures for the small rotary plants were 49 and 6.4 per cent, for steam sterilization plants 50 and 23 per cent, and plants employing hand washing 6 and 23.5 per cent.

A comparison of plants relying wholly or mainly on soaking in a detergent section with those relying exclusively on spray from jets showed that though good results might be obtained by either method, the spray type of plant gave on the average better results than the soaker type of plant. The general conclusion is reached that equally good results may be obtained in large or small rotary plants relying on sterilization by a caustic detergent as in plants employing steam sterilization, and that the uniformly best results are obtained in properly designed and operated plants of the spray type.

From a study of the process of disinfection by caustic soda it is concluded that